

# Introduction to Computing — Lab

## Week -02

### Topic

cout **statement** in c++

### Objective

- How to program in C++.
- To know how to display message/output to the console.
- Get familiar with cout syntax.

### Outcomes

1. Recognize and fix syntax errors in **cout** statements.
2. Apply best practices to avoid syntax and semantic errors in **cout** code.

### Content

The following topics require understanding for this lab session:

1. cout

Details of these topics are given below:

### 1. cout

**Cout** is an output insertion operator in C++ that is used to insert output into the standard output stream (usually the screen). It is a part of the iostream standard library in C++.

### Lab-Tasks

Students are required to complete the following tasks in lab timings.

#### Task 1

Write a C++ program to display the following output in single cout statement:

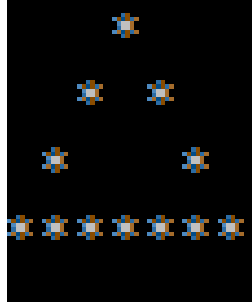
**Hello, World!**

**This is a C++ program.**

## Task 2

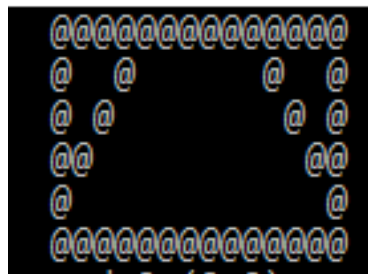
Write a C++ program to print a hollow triangle on console using cout statement as shown below:

**Sample Output:**



## Task 3

Write a C++ program to print a following shape on console using cout statement as shown below:



## Task 4

Write a C++ program to print a following shape on console using cout statement as shown below:



### Task 5

Write a C++ program display your following details in cout statement.

**Name:** My Name is Ali

**Registration No:** Your UCP-Registration Number

**Email:** Your email address

**Gender:** Your Gender

**Age:** Your Age

**Hometown:** Your hometown Address

### Task 6

Write a program that produce the following output:

**Sample Output:**

```
*****
*   Programming Assignment 1   *
*   Computer Programming I    *
*       Author: ???           *
*   Due Date: Thursday, Jan. 24 *
*****
```

### Task 7

Write a program that produce the following output:

```
CCCCCCCCC      ++      ++
CC            ++      ++
CC            ++++++      ++++++
CC            ++++++      ++++++
CC            ++      ++
CCCCCCCCC      ++      ++
```

### Task 8

Print the students roll number and marks of subjects and print the total marks of that students; sample screen is given below:

*****				
Result Sheet				
*****				
Student's Roll No.	Math	Physics	Chemistry	Total
2357	99	85	97	281

### Task 9

Write a C++ program to print the following output as **UCP-CS**;

```
U      U  CCCCC  PPPPP  CCCCCC  SSSSS
U      U  C      P      P  C      S
U      U  C      P  PPPP  C      SSSSSS
U      U  C      P      C      S
|UUUUU  CCCCC  P      CCCCCC  SSSSS
```

### Task 10

Write a C++ program to print the following output as

